

## Expert advice helps cut fleet costs

Denholm Industrial Services Ltd



- Annual fuel cost savings of £36,000
- 150,000 fewer miles travelled
- Improved productivity

## BACKGROUND

### BACKGROUND

Denholm Industrial Services are a Division of the J & J Denholm Group. The Industrial Services Division offers a multi-disciplinary service whose main activities are scaffolding and containment, surface preparation and painting, industrial cleaning and high pressure water jetting.

The company as a whole has an annual turnover of over £100 million with the Industrial Services Division contributing over 30% of this. Denholm Industrial Services operates from four regional offices within the UK-Aberdeen, Glasgow, Portsmouth and Yeovil.

### DENHOLM'S OPERATION

In October 2001, Denholm Industrial Services' company fleet consisted of:

■ Commercial vehicles 7.5 to 26 tonnes	16
■ Light vans and mini buses	56
■ Company cars (diesel and petrol)	28

The annual company fuel costs were estimated to be more than £200,000. Total distance covered was estimated at 2.379 million miles a year. Denholm typically purchased their fuel from a number of sources including an in-house tank facility and a number of fuel card suppliers, at varying prices. Denholm use swap bed vehicles, grossing 26 tonnes for all major works, supported with both 17 tonne and 7.5 tonne rigid vehicles for smaller contracts. The use of swap bed vehicles enables them to pre-load, deliver to site and leave the swap body on site. The ratio of tractors to swap beds is 1:7. Due to the nature of the site works, they also operate a number of light vans for supervision, and mini buses for transporting staff. Company cars are only supplied to staff if their need is justified.

### FUEL ECONOMY ADVICE

In 2001, Denholm Industrial Services appointed a new Logistics Manager, Nick Matthews. One of his key objectives was to improve fleet operating efficiency. The company considered themselves to be efficient through long-term good practice, but Nick realised that there was room for improvement. He looked for expert advice and guidance and after hearing of a **free seminar** on 'Freight Transport Efficiency' he wasted no time in registering.



Denholm Scaffolding at Wells Cathedral



## FUEL ECONOMY ADVICE

The seminar was organised by the Somerset Business Initiative, a collaborative project between Groundwork Plymouth, the Local Authorities in Somerset and Business Link Somerset. The Initiative was established in 1999 to help businesses boost profitability through practical assistance on energy efficiency, environmental best practice and resource efficiency.

Topics covered in the two-hour seminar included fuel, vehicle specification and the role of management. The seminar, targeted at drivers, owner-drivers and small or medium sized operators was designed to be as relevant as possible. Nick was asked to fill in a questionnaire before attending to provide information about his current operation such as estimated fuel use (weekly or annual) and vehicle description (axles and weights) and type (tipper, tanker, flat, box, chiller etc). The seminar leader then brought this background data into the discussion and helped Nick set realistic targets to be achieved.

This is how Nick describes his experience at the seminar:

*'Having recently taken over as Logistics Manager my aim was to discover ways to improve the fleet efficiency. The seminar left me in no doubt that there were a number of ideas that I could implement that would make a big difference. One of the most important issues was recording the amount of fuel being used.'*

Whilst at the seminar Nick also found that he could apply for a visit from an independent expert fuel economy advisor. By visiting Nick at his site, the advisor could look at Denholm's specific operation and help Nick to start putting into practice some of the things that were discussed at the seminar. Again, Nick jumped at the chance.



Denholm personnel receiving energy saving briefing

### How you too can receive *free* Fuel Economy Advice

Free local seminars providing practical advice on how hauliers can boost their fuel efficiency are currently being held across England. These are part of the Fuel Economy Advisors (FEA) scheme, designed to deliver information, practical advice and suggestions for improving fuel efficiency of vehicles and give examples of best practice.

After attending a seminar, you can also request an advisor to visit you to provide guidance specific to your trucking business. This 'site-specific' programme involves an initial questionnaire, a full-day visit, a report from the consultant, and a follow up visit. In compliance with EU rules on state aids, you will be asked to contribute £150 towards the cost of this tailored advice.



To book your free seminar and/or arrange a site visit contact one of the FEA contractors – details are shown on the back page

## SITE SPECIFIC ACTION PLAN

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When the fuel economy advisor came to visit Nick at Denholm's Yeovil base their main concern was that the company had no direct cost comparisons on individual vehicle performance. Also, there was no monitoring system in place that was both accurate and simple to use; and there was no way to highlight best practice in vehicle operations.

Following a thorough audit of Denholm's operations and systems, the advisor was able to draw up a detailed action plan. This enabled Nick to review Denholm's total transport operation focusing on a number of key areas:

- Monitoring and targeting of vehicle MPG, mileage and fuel costs
- Vehicle utilisation
- Vehicle specification and payload performance
- Driver training

The following sections describe the findings that were made in each of these areas as a result of the site audit and subsequent review. They also show what benefits have been gained as a result of Nick and his team acting on the findings.

### Monitoring and targeting of vehicle MPG, mileage and fuel costs

Denholm had little or no management information on fuel costs, vehicle MPG and mileage so they couldn't actually produce accurate figures. The advisor identified that this was a problem area and proposed the introduction of a database. This records mileage, fuel costs and individual vehicle fuel economy on a monthly basis.

This action brought immediate returns. With this "clean data" it was obvious that there were a couple of vehicles that were consistently recording very low MPG. Further investigations revealed that these vehicles were being driven harshly, often at the maximum legal speed limit. Road speed limiters were already fitted to these vehicles but were not activated, as they were not legally required (these vehicles were less than 7.5 tonnes). Activating the limiters on these two vehicles achieved a massive improvement in MPG of 68%. This simple action clearly demonstrated the value of recording good fuel consumption information.

Denholm also fitted a speed limiter to a transit dropside (long wheel base) twin rear wheel vehicle (3500kg GVW) on a trial basis. Again there was a considerable improvement in the recorded MPG, currently saving 27%. The immediate fuel savings achieved by fitting and activating speed limiters amounted to some £5,700 per annum. Also, since Denholm now have a simple and reliable system for tracking fuel consumption, they are fully committed to reducing fuel use further in the future.

Collecting data on fuel costs focussed Denholm's attention on the way fuel was purchased. This analysis revealed a number of methods including local accounts, a national fuel card and delivery to a small on-site bunker facility. The advisor recommended that these methods be rationalised. Denholm therefore introduced a single fuel purchase card that produced monthly reports. They also stopped buying fuel at motorway service stations and installed a fuel recording system on the Yeovil depot bunker facility. These actions resulted in cost savings of between 1 to 2% of Denholm's total fuel costs, some £2,000 per year.



Denholm truck loaded for transport to site

## SITE SPECIFIC ACTION

### Vehicle utilisation

The review of vehicle utilisation looked at the number of trips (by vehicle), the number of miles each vehicle covered per day and the number of days that each vehicle was used. At the Yeovil depot this information revealed that in a number of cases two vehicles were being sent to the same site on the same day. It was realised that one of the larger vehicles, with an improved payload capacity, could have made the load delivery in one trip. Information gathered also revealed that some vehicles were not used on a number of days. Denholm quickly realised that utilisation could be improved and vehicle numbers reduced without any adverse effect on service levels. As a result three vehicles were sold, reducing distance travelled by 38,000 miles a year.

The second part of the vehicle utilisation review focused on how employees travelled from accommodation to site and back. This highlighted that employee mileage could be reduced by running a pick-up service. Consequently, Denholm purchased three mini-buses dedicated to collecting staff from their accommodation and taking them to the required site. Although it is difficult to accurately measure the reduction in distance travelled by staff using their own cars it is estimated that this led to a net reduction of about 15,000 miles a year.

The final part of the vehicle utilisation review looked at the use of company cars and vans. This identified that there were plenty of opportunities for reducing the amount of business travel by eliminating some unnecessary journeys and sharing vehicles. Denholm made a decision to reduce the number of company cars by seven and to replace a number of older light vans with more fuel efficient models equipped with rear seating, increasing the carrying capacity to four people. The reduction in the number of company cars resulted in a saving of 191,000 miles a year. An increase in business required Denholm to buy more vans. Even allowing for this Denholm estimate that they have saved 93,000 miles a year in company car and van travel as a direct result of the advice.

### Vehicle specification and payload performance

A number of Denholm's current 6 x 2 axle rigids are only equipped with a single wheel rear tag axle, resulting in a limited payload factor. All the current vehicles are equipped with multi speed gearboxes and axle ratios that do not meet the mix of traffic or site work that the company carries out. Consequently, Denholm were advised to consider what type of vehicles they should be using. They decided that in the future all 26 tonne gross vehicles will be equipped with a twin wheel rear tag axle, and on board axle weighers. This will help to achieve maximum payload and also remove the possibility of axle overload. Vehicles will also be specified with gearbox and axle ratios that will allow them to maximise fuel efficiency.



*Denholm mini-bus used to transport personnel between accommodation and site*



## SITE SPECIFIC ACTION

Recognising that loading on 7.5 tonne vehicles is critical, Denholm's policy was to calculate the payload for these vehicles using standard item weights and then allow a safe load factor.

This is not the most accurate method, so the company looked at a number of axle weighing devices. Their final selection was based on whether the device could be programmed on site, was easy to read, tamper proof, accurate and cost effective. The unit was calibrated to an axle tolerance of 40kg and a gross vehicle tolerance of 80kg. Early indications show that Denholm have been able to increase the amount carried by vehicles by 6%. It is estimated that this increase in payload efficiency could reduce the overall distance travelled by these vehicles by 4,000 miles a year.

Denholm also recognised that vehicle payload performance could be improved by modifying the load supports on the swap beds to enable an increase in the second tier load. A programme is currently in place to modify all existing swap beds.

### Driver training

Since driving style has a dramatic effect on fuel consumption, the advisor also looked at which steps Denholm could take to improve driver performance.

They have recently sent two of their senior drivers on an extended advanced driver training course. All other drivers have attended an introductory advanced driver course, with on-going training planned. All drivers will also take advantage of the driver training/vehicle familiarisation package offered by the manufacturer of their new vehicles.

After completing their advanced driver training the senior drivers will both train and monitor the other drivers, at all depots, on a regular basis. The company has also started on-site training for drivers from a range of courses offered by Vehicle Inspectorate Training Services (0117 954 3310).



*Denholm's senior driver, Brian Grant and Logistics Manager, Nick Matthews*

## SUMMARY

### Summary

Following the advice and action plan report from the fuel economy advisor Nick and his team have been able to start making significant fleet cost savings, with more to follow. The impact of all the actions on mileage and fleet strength is summarised in the table below.

	BEFORE	AFTER
Annual Fleet Mileage	2,379,000	2,229,000
Fleet Strength:		
Company Cars	28	21
Light Commercial Vehicles	56	60
Large Commercial Vehicles	16	13

The impact of all these initiatives on fuel costs has been considerable. The estimated annual savings achieved are summarised in the table below.

ACTION	ANNUAL FUEL COST SAVING
150,000 miles saved	£28,300
Monitoring & Targeting Vehicle Consumption	£5,700
Revised Fuel Purchasing Procedures	£2,000
<b>TOTAL</b>	<b>£36,000</b>

Excluding the potential fuel savings due to better vehicle specification, payload factors and driver training, Denholm will reduce their fuel costs by an estimated £36,000 a year.

This is a saving of almost 18% of fuel costs in the first year of implementation.



*Denholm Scaffolding at Thames Bray*

## CONCLUSION

## FEA Scheme Providers

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*'We knew we could improve, but weren't exactly sure where to start. With the excellent advice and guidance from our fuel economy advisor we were able to focus on actions that not only achieved quick wins, but also sustained long term gains.'*

*Nick Matthews, Logistics Manager  
 Denholm Industrial Services*

## CONCLUSION

Denholm Industrial Services have shown that by installing simple management controls they have reduced vehicle mileage and improved MPG performance. By taking advantage of the help available from independent expert advisors, they have been able to develop and implement the most cost-effective measures to suit their operations.

To reserve your place on a free fuel economy seminar and find out how much you could save contact one of the FEA scheme providers on the left.

**Can you afford to miss out on this free opportunity?**

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